## SEQUENCE LISTING

<110> Prof. Dr. Axel R. Zander														
<120> Use of CD34 or a Polypeptide derived therefrom as Cell Surface/Gene Transfer Marker														
<130> 35-204														
<140> <141>														
<160> 10														
<170> PatentIn Ver. 2.0														
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ggg ttc atg agt ctt gac aac aac ggt act gct acc cca gag tta cct 96 Gly Phe Met Ser Leu Asp Asn Asn Gly Thr Ala Thr Pro Glu Leu Pro 20 25 30														
acc cag gga aca ttt tca aat gtt tct aca aat gta tcc tac caa gaa 144 Thr Gln Gly Thr Phe Ser Asn Val Ser Thr Asn Val Ser Tyr Gln Glu 35 40 45														
act aca aca cct agt acc ctt gga agt acc agc ctg cac cct gtg tct 192 Thr Thr Thr Pro Ser Thr Leu Gly Ser Thr Ser Leu His Pro Val Ser 50 55 60														
caa cat ggc aat gag gcc aca aca aac atc aca gaa acg aca gtc aaa 240 Gln His Gly Asn Glu Ala Thr Thr Asn Ile Thr Glu Thr Thr Val Lys 65 70 75 80														
ttc aca tct acc tct gtg ata acc tca gtt tat gga aac aca aac tct 288 Phe Thr Ser Thr Ser Val Ile Thr Ser Val Tyr Gly Asn Thr Asn Ser 85 90 95														
tct gtc cag tca cag acc tct gta atc agc aca gtg ttc acc acc cca 336 Ser Val Gln Ser Gln Thr Ser Val Ile Ser Thr Val Phe Thr Thr Pro														

100 105 110

gcc Ala																384
gga Gly																432
ccc Pro 145																480
gca Ala																528
					aat Asn											576
gac Asp																624
Asp	gct Ala 210	gat Asp	gct Ala	ggg Gly	gcc Ala	cag Gln 215	gta Val	tgc Cys	tcc Ser	ctg Leu	ctc Leu 220	ctt Leu	gcc Ala	cag Gln	tct Ser	672
gag Glu 225					tgt Cys 230											720
					caa Gln											768
aag Lys																816
agc Ser	tat Tyr	tcc Ser 275	caa Gln	aag Lys	acc Thr	ctg Leu	att Ile 280	gca Ala	ctg Leu	gtc Val	acc Thr	tcg Ser 285	gga Gly	gcc Ala	ctg Leu	864
Leu					atc Ile											912
					gaa Glu 310											960
					ggc Gly											1008

	gct Ala	cag Gln	gga Gly	aag Lys 340	gcc Ala	agt Ser	gtg Val	aac Asn	cga Arg 345	GJÀ āāā	gct Ala	cag Gln	gaa Glu	aac Asn 350	ggg Gly	acc Thr	1056
	ggc Gly	cag Gln	gcc Ala 355	acc Thr	tcc Ser	aga Arg	aac Asn	ggc Gly 360	cat His	tca Ser	gca Ala	aga Arg	caa Gln 365	cac His	gtg Val	gtg Val	1104
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	Thr	Gln	Gly 35		Phe	Ser	Asn	Val		Thr	Asn	Val	Ser 45		Gln	Glu	
	Thr	Thr 50		Pro	Ser	Thr	Leu 55		Ser	Thr	Ser	Leu 60	His	Pro	Val	Ser	
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		Thr	Ser	Thr	Ser 85		Ile	Thr	Ser	Val 90		Gly	Asn	Thr	Asn 95		
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	Ala	Asn		100 Ser	Thr	Pro	Glu		105 Thr	Leu	Lys	Pro			Ser	Pro	
	Gly		115 Val	Ser	Asp	Leu		120 Thr	Thr	Ser	Thr		125 Leu	Ala	Thr	Ser	
	Pro	130 Thr	Lys	Pro	Tyr	Thr	135 Ser	Ser	Ser	Pro	Ile	140 Leu	Ser	Asp	Ile	Lys	
	145					150					155					160	
					165					170					Gln 175		
	Ile	Суѕ	Leu	Glu 180	Gln	Asn	Lys	Thr	Ser 185	Ser	Cys	Ala	Glu	Phe 190	Lys	Lys	
	Asp	Arg	Gly 195	Glu	Gly	Leu	Ala	Arg 200	Val	Leu	Суѕ	Gly	Glu 205	Glu	Gln	Ala	
	$\mathtt{Asp}^{\hat{\eta}}$	Ala 210	Asp	Ala	Gly	Ala	Gln 215	Val	Cys	Ser	Leu	Leu 220	Leu	Ala	Gln	Ser	
	Glu 225		Arg	Pro	Gln	Cys 230	Leu	Leu	Leu	Val	Leu 235	Ala	Asn	Arg	Thr	Glu 240	
		Ser	Ser	Lys	Leu 245		Leu	Met	Lys	Lys 250		Gln	Ser	Asp	Leu 255		
	Lys	Leu	Gly			Asp	Phe	Thr	Glu 265		Asp	Val	Ala	Ser 270	His	Gln	
	Ser	Tyr	Ser 275	260 Gln	Lys	Thr	Leu	Ile 280		Leu	Val	Thr	Ser 285		Ala	Leu	

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 Val
 Leu
 Gly
 Ile
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 Gly
 Tyr
 Phe
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 Arg
 Arg
 Ser

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 Pro
 Thr
 Gly
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 Tyr
 Thr
 Glu

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						gag Glu										384
						tca Ser 135										432
						tca Ser										480
						ggc Gly										528
atc Ile	tgc Cys	ctg Leu	gag Glu 180	caa Gln	aat Asn	aag Lys	acc Thr	tcc Ser 185	agc Ser	tgt Cys	gcg Ala	gag Glu	ttt Phe 190	aag Lys	aag Lys	576
						gcc Ala										624
gat Asp	gct Ala 210	gat Asp	gct Ala	ggg Gly	gcc Ala	cag Gln 215	gta Val	tgc Cys	tcc Ser	ctg Leu	ctc Leu 220	ctt Leu	gcc Ala	cag Gln	tct Ser	672
gag Glu 225	gtg Val	agg Arg	cct Pro	cag Gln	tgt Cys 230	cta Leu	ctg Leu	ctg Leu	gtc Val	ttg Leu 235	gcc Ala	aac Asn	aga Arg	aca Thr	gaa Glu 240	720
						ctt Leu										768
						ttc Phe										816
						ctg Leu										864
ctg Leu	gct Ala 290	gtc Val	ttg Leu	ggc Gly	atc Ile	act Thr 295	ggc Gly	tat Tyr	ttc Phe	ctg Leu	atg Met 300	aat Asn	cgc Arg	cgc Arg	agc Ser	912
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Thr Gln Gly Thr Phe Ser Asn Val Ser Thr Asn Val Ser Tyr Gln Glu
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Thr Thr Thr Pro Ser Thr Leu Gly Ser Thr Ser Leu His Pro Val Ser
                         55
Gln His Gly Asn Glu Ala Thr Thr Asn Ile Thr Glu Thr Thr Val Lys
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                    70
Phe Thr Ser Thr Ser Val Ile Thr Ser Val Tyr Gly Asn Thr Asn Ser
Ser Val Gln Ser Gln Thr Ser Val Ile Ser Thr Val Phe Thr Thr Pro
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                                105
Ala Asn Val Ser Thr Pro Glu Thr Thr Leu Lys Pro Ser Leu Ser Pro
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                                                125
       115
Gly Asn Val Ser Asp Leu Ser Thr Thr Ser Thr Ser Leu Ala Thr Ser
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Pro Thr Lys Pro Tyr Thr Ser Ser Pro Ile Leu Ser Asp Ile Lys
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                    150
Ala Glu Ile Lys Cys Ser Gly Ile Arg Glu Val Lys Leu Thr Gln Gly
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Ile Cys Leu Glu Gln Asn Lys Thr Ser Ser Cys Ala Glu Phe Lys Lys
                               185
Asp Arg Gly Glu Gly Leu Ala Arg Val Leu Cys Gly Glu Gln Ala
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       195
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Asp Ala Asp Ala Gly Ala Gln Val Cys Ser Leu Leu Leu Ala Gln Ser
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                                            220
Glu Val Arg Pro Gln Cys Leu Leu Leu Val Leu Ala Asn Arg Thr Glu
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                                        235
Ile Ser Ser Lys Leu Gln Leu Met Lys Lys His Gln Ser Asp Leu Lys
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Lys Leu Gly Ile Leu Asp Phe Thr Glu Gln Asp Val Ala Ser His Gln
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Ser Tyr Ser Gln Lys Thr Leu Ile Ala Leu Val Thr Ser Gly Ala Leu
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<sup>&</sup>lt;211> 906

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;220>

<sup>&</sup>lt;221> CDS

<222> (1)..(906) <223> CD34 (deleted variant)

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							acc Thr	336
							tca Ser	384
							aca Thr	432
							atc Ile	480
							cag Gln 175	528
							aag Lys	576
							cag Gln	624

αat																
Asp	gct Ala 210	gat Asp	gct Ala	Gly ggg	gcc Ala	cag Gln 215	gta Val	tgc Cys	tcc Ser	ctg Leu	ctc Leu 220	ctt Leu	gcc Ala	cag Gln	tct Ser	672
	gtg Val															720
	tcc Ser															768
aag Lys	ctg Leu	Gly ggg	atc Ile 260	cta Leu	gat Asp	ttc Phe	act Thr	gag Glu 265	caa Gln	gat Asp	gtt Val	gca Ala	agc Ser 270	cac His	cag Gln	816
	tat Tyr															864
~	gct Ala 290	_	_				-						tga			906
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m1				5				Gly	10				Glu	15		
Thr	Gln	Gly	20	5 Leu	Asp	Asn	Asn Val	Gly 25	10 Thr	Ala	Thr	Pro Ser	Glu 30	15 Leu	Pro	
	Thr	Gly 35	20 Thr	5 Leu Phe	Asp Ser	Asn Asn Leu	Asn Val 40	Gly 25 Ser	10 Thr	Ala Asn	Thr Val Leu	Pro Ser 45	Glu 30 Tyr	15 Leu Gln	Pro Glu	
Thr		Gly 35 Thr	20 Thr Pro	5 Leu Phe Ser	Asp Ser Thr	Asn Asn Leu 55	Asn Val 40 Gly	Gly 25 Ser Ser	10 Thr Thr	Ala Asn Ser	Thr Val Leu 60	Pro Ser 45 His	Glu 30 Tyr Pro	15 Leu Gln Val	Pro Glu Ser	
Thr Gln 65	Thr 50	Gly 35 Thr	20 Thr Pro Asn	5 Leu Phe Ser Glu Ser	Asp Ser Thr Ala 70	Asn Asn Leu 55 Thr	Asn Val 40 Gly Thr	Gly 25 Ser Ser	10 Thr Thr Thr Ile	Ala Asn Ser Thr 75	Thr Val Leu 60 Glu	Pro Ser 45 His	Glu 30 Tyr Pro Thr	15 Leu Gln Val Val	Pro Glu Ser Lys 80	
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Thr Gln 65 Phe	Thr 50 His	Gly 35 Thr Gly Ser Gln Val	20 Thr Pro Asn Thr Ser 100	5 Leu Phe Ser Glu Ser 85 Gln	Asp Ser Thr Ala 70 Val	Asn Leu 55 Thr Ile Ser	Asn Val 40 Gly Thr Val Thr	Gly 25 Ser Ser Asn Ser Ile 105	10 Thr Thr Thr Ile Val 90 Ser	Ala Asn Ser Thr 75 Tyr	Thr Val Leu 60 Glu Gly Val	Pro Ser 45 His Thr Asn Phe Ser	Glu 30 Tyr Pro Thr Thr	15 Leu Gln Val Val Asn 95 Thr	Pro Glu Ser Lys 80 Ser Pro	
Thr Gln 65 Phe Ser Ala	Thr 50 His Thr Val Asn	Gly 35 Thr Gly Ser Gln Val 115	20 Thr Pro Asn Thr Ser 100 Ser	5 Leu Phe Ser Glu Ser 85 Gln Thr	Asp Ser Thr Ala 70 Val Thr	Asn Asn Leu 55 Thr Ile Ser Glu Ser	Asn Val 40 Gly Thr Thr Val Thr 120	Gly 25 Ser Ser Asn Ser Ile 105 Thr	10 Thr Thr Thr Ile Val 90 Ser Leu	Ala Asn Ser Thr 75 Tyr Thr Lys	Thr Val Leu 60 Glu Gly Val Pro Ser	Pro Ser 45 His Thr Asn Phe Ser 125	Glu 30 Tyr Pro Thr Thr 110 Leu	15 Leu Gln Val Val Asn 95 Thr	Pro Glu Ser Lys 80 Ser Pro	
Thr Gln 65 Phe Ser Ala Gly Pro	Thr 50 His Thr Val	Gly 35 Thr Gly Ser Gln Val 115 Val	20 Thr Pro Asn Thr Ser 100 Ser Ser	5 Leu Phe Ser Glu Ser 85 Gln Thr	Asp Ser Thr Ala 70 Val Thr Pro Leu Thr	Asn Leu 55 Thr Ile Ser Glu Ser 135	Asn Val 40 Gly Thr Val Thr 120 Thr	Gly 25 Ser Ser Asn Ser Ile 105 Thr	10 Thr Thr Thr Ile Val 90 Ser Leu Ser	Ala Asn Ser Thr 75 Tyr Thr Lys Thr	Thr Val Leu 60 Glu Gly Val Pro Ser 140	Pro Ser 45 His Thr Asn Phe Ser 125 Leu	Glu 30 Tyr Pro Thr Thr 110 Leu	15 Leu Gln Val Val Asn 95 Thr Ser	Pro Glu Ser Lys 80 Ser Pro Pro Ser Lys	
Thr Gln 65 Phe Ser Ala Gly Pro 145	Thr 50 His Thr Val Asn Asn 130	Gly 35 Thr Gly Ser Gln Val 115 Val Lys	20 Thr Pro Asn Thr Ser 100 Ser Ser	5 Leu Phe Ser Glu Ser 85 Gln Thr Asp	Asp Ser Thr Ala 70 Val Thr Pro Leu Thr 150	Asn Leu 55 Thr Ile Ser Glu Ser 135 Ser	Asn Val 40 Gly Thr Thr Val Thr 120 Thr	Gly 25 Ser Ser Asn Ser Ile 105 Thr Thr Ser	Thr Thr Ile Val 90 Ser Leu Ser Pro	Ala Asn Ser Thr 75 Tyr Thr Lys Thr Ile 155	Thr Val Leu 60 Glu Gly Val Pro Ser 140 Leu	Pro Ser 45 His Thr Asn Phe Ser 125 Leu Ser	Glu 30 Tyr Pro Thr Thr 110 Leu Ala Asp	15 Leu Gln Val Val Asn 95 Thr Ser Thr	Pro Glu Ser Lys 80 Ser Pro Pro Lys 160	



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Ile Cys Leu Glu Gln Asn Lys Thr Ser Ser Cys Ala Glu Phe Lys Lys
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Asp Arg Gly Glu Gly Leu Ala Arg Val Leu Cys Gly Glu Glu Gln Ala
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                            200
Asp Ala Asp Ala Gly Ala Gln Val Cys Ser Leu Leu Ala Gln Ser
                        215
                                            220
Glu Val Arg Pro Gln Cys Leu Leu Leu Val Leu Ala Asn Arg Thr Glu
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                   230
Ile Ser Ser Lys Leu Gln Leu Met Lys Lys His Gln Ser Asp Leu Lys
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                                    250
Lys Leu Gly Ile Leu Asp Phe Thr Glu Gln Asp Val Ala Ser His Gln
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            260
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